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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,917	02/13/2002	Kenneth Elmon Koch III	46872.269148 (UNCC 2001-0	1717

			EXAMINER
44231	7590	08/08/2005	PAN, DANIEL H

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ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/075,917	KOCH, KENNETH ELMON
	Examiner	Art Unit
	Daniel Pan	2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

   4a) Of the above claim(s) *28-45* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *02/13/02*.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

1.   Claims 1-27 are examined on the merit of the election on 05/16/05.

2.   Applicant's election without traverse of claims 1-27 (Group I) in the reply filed on

05/16/05 is acknowledged.

3.   Applicant is reminded in regard to the IDS filed by applicant on 02/13/02 that

there was no entry of reference in the 1449 form . Therefore, the 1449 form was a

blank form. It is believed that it might be an oversight of applicant. Applicant is reminded

to submit corrected 1449 form in the next response.

        The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11
F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225
USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA
1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*,
418 F.2d 528, 163 USPQ 644 (CCPA 1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be
used to overcome an actual or provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or patent is shown to be commonly
owned with this application. See 37 CFR 1.130(b).
        Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with
37 CFR 3.73(b).

4.   Claim 1 is provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claim 1 of copending

Application No. 10/803,690. Although the conflicting claims are not identical, they are

not patentably distinct from each other because of the following reasons.

        This is a provisional obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

Although the copending claim 1 did not recite the Conjunctive normal form Boolean

expressions as claimed , the copending claim 1 recited normal form Boolean

expressions. It would have been obvious to one of ordinary skill in the art to include

conjunctive form as claimed because one of ordinary skill in the art should be able to

recognize the normal form Boolean expression was also applicable in conjunctive form

in order to expand the logic structure of the Boolean operations because the

conjunctive form (e.g. the AND) was one of the standard format of the Boolean

expression (the other format would be OR, XOR, etc), and in doing so, provided a

motivation.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-21 are rejected under 35 U.S.C. 102(a) as being anticipated by

Saldanha et al. (5,682,519).

6.   As to claims 1,2, 8, 21, Saldanha taught a processor comprising at least :

a) a Boolean logic circuit (see fig.5) , wherein the Boolean logic unit is operable for

performing the short circuit evaluation of Conjunctive Normal Form Boolean

expressions/operations (see AND gate, see the short circuited AND in col.7, lines 53-

65, see for Boolean expression);

b) a plurality of input/output interfaces (see fig.5) , wherein the plurality of input/output

interfaces are operable for receiving plurality of compiled Boolean

expressions/operations and transmitting a plurality of compiled results, and a plurality of

registers (see Boolean expressions and compiled result in col.4, lines 48-67, col.5,

lines 1-57, see also figs.4 , 7,8 for the input/output connections, see also the

simulation of logic properties of the circuit and the Boolean expressions in col.2, lines

36-67 for background).

7.   As to claims 3,9, Saldanha also rolled up the results of the AND and OR gates

(see figs.4,5).

8.   As to claims 4,5, Saldanha also had default and initialized value of 1 (see "1"

in fig.4).

9.   As to claim 6, Saldanha also remained one on true result (see the AND B value

of 1 in col.2, line 62, see the OR 1 value in col.2, line 63, see also figs.5,7).

10.   As to claim 7, see short circuited AND "0" in figs.5,7).

11.   As to claims 10, 11,12, Saldanha also included OR "zero" until the conjunct

was "one" (see figs.5,7, see also the enable signal in fig.5).

12.   As to claim 13, Saldanha also included conjunct evaluation to true if

the OR register is set to "1" and the OR conjunct register is set to "1", and

the processor short-circuits to the start of the next conjunct (see the short circuited OR

in col.7, lines 27-41, see the iterations for the next conjunct).

13.   As to claim 14,15,   Saldanha also included a decoder (see the AND , OR, and the branches jumps for the conditional jump in fig.7).

14.   As to claim16, Saldanha also inputted in parallel (see input at 560 in fig.8, see also the background of encoding in col.1, lines 63-67) and outputted across a device bus either in series (see bus to 600) or parallel (see parallel inputs to (500).

15.   As top claim 17, see RAM in fig.2.

16.   As to claims 18,19, 20, a micro program and program counter not explicitly shown, but see the computer OS, and software in col.5, lines 40-52). No specific format of the micro program and program counter can be found in the claim, therefore, it is read as a micro program and a program counter in the computer in general. AS to the configuring of the program counter and the jump operations , no specific configuration of the program counter and the jump operations has been reflected into the claim, therefore, it is assumed to be a general configuration. Saldanha also taught many computer system type and configurations were suitable for use (see col.5, lines 54-56).

       The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17.   Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saldanha in view of Gupta (6,385,757) .

18.   As to clams 22,23,25 Saldanha did not specifically showed the instruction

register, address register,   nor the 3 bit operation code as clamed. However, Gupta

disclosed a system including an instruction register , address register, and a variable

length instruction (see col.44, lines 43-61, see also fig.14). It would have been obvious

to one of ordinary skill in the art to use Gupta in Saldanha for including instruction

register and the 3 bit operation code as claimed because the use of Gupta   could

provide Saldanha the ability to adapt to different instruction width based on the system

requirement, and Saldanha did disclose that many computer system types and

configuration were suitable for his system (se col.5, lines 54-57), which was an

indication of the applicability of different system configurations, such as different

numbered o of opcode width , into the system in order to provide the enhanced

adaptability, and for doing so, provided a motivation.

19.   As to claim 24, see the instruction sequencer for the memory address in col.10,

lines 16-28 for the address register. See also the OR in Saldanha for the OR register.

20.   As to claims 26,27, as to the single bit register, Gupta already taught a variable

length register, therefore, a single bit, or any number of bit should be recognizable by

one ordinary skill in the art for implementing the logic gate operations.

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

a) Mansfield , Jr. et al. (5,530,939) is cited for the background teaching of the

short circuited evaluation of the Boolean AND and OR (see col.5, lines 26-44).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

21 Century Strategic Plan

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